

ON THE ANATOMY OF *HELIX POLITISSIMA*, PFEIFFER, OF
CEYLON, AND ON ITS POSITION IN THE ARIOPHANTINÆ.

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PLATE XXVI.

ARIOPHANTA (RAVANA, n.subgen.) POLITISSIMA (Pfeiffer).

- Helix politissima*, Pfr. : Proc. Zool. Soc., 1853, p. 125; Mon. Helic., vol. iv, p. 45. Reeve: Conch. Icon., pl. clxxxvi, fig. 1292.
Hanley & Theobald: Conch. Indica, p. 15, pl. xxxi, figs. 8, 9.
- Nanina (Xestina) politissima*, Pfr. : Vers., p. 120. Albers: Die Heliceen, 1860, p. 51, the habitat there given is "Salomon's Inseln."¹
- Macrochlamys* (sec. A) *politissima*, Pfr. : Theobald, Cat. Land and Fresh-water Shells Brit. Ind., p. 18.
- Nanina (Macrochlamys) politissima*, Pfr. : Nevill, Hand List Moll. Ind. Mus., p. 22.
- Nanina (Xestina) politissima*, Pfr. : G. Pfeffer, Abh. Geb. Nat. Ver. Hamburg, Bd. vii, Abth. 2 (1883), p. 13.

With reference to this last citation, Pfeffer appears to have restricted *Xestina* to the following species (having originally, when creating the genus in 1878, included other species, of which one, mentioned by name, is a Siamese shell, viz. *N. Siamensis*, Pfr.) :—*Xestina bistrialis* (Beck), *X. Maderaspatana* (Gray), *X. Belangerii* (Desh.), *X. Tranquebarica* (Fab.), *X. ligulata* (Fér.), all from Southern India, and finally, *X. politissima*, from Ceylon. This last, however, cannot be the mollusc I now describe, for Pfeffer gives the radula as having the formula 22 : 11 : 1 : 11 : 22, which thus differs both in the number of admedian and marginal teeth: no other part of its anatomy is mentioned, and probably was not seen. An error has evidently occurred in the identification, and I would suggest that some species of the genus *Eurychlamys* must have been before the author, for the above formula agrees with that of *E. regulata*, a smooth, glassy shell, which might very possibly be mistaken for the true *politissima*.

As to *Xestina*, which was never properly described in the first instance, it would save so much doubt and confusion if authors, when creating a new genus or subgenus, would distinctly name one species as the type, and not give half a dozen or more, of which in most cases, and particularly in the mollusca, the anatomy has yet to be made known.

¹ Possibly another species if the shell seen by Albers came from that locality.

I have recently had placed in my hands by Dr. W. T. Blanford a single specimen of the mollusc which forms the subject of this note. It was collected by Mr. O. Collett, and, like all the material he has sent home in formalin, is in an excellent state of preservation. The exact locality given is Watawala, at 3,500 feet elevation. The shell is remarkably like species of *Macrochlamys*, such as *M. lubrica*, Benson, of Darjiling, and thus it has been placed by later writers in that genus.¹ I should certainly have done the same, had I not examined the anatomy of so many Southern Indian and Ceylon forms during the last two or three years. Taking the character of the anatomy all round, they are curiously unlike the Northern Indian forms, and this has impressed me with the belief that no *Macrochlamys*-like snail has ever found its way so far south among the Ariophantinae—that their paths, in fact, have been always widely separate.

Animal.—This is slaty grey all over, darkest on the head and tentacles, body elongate, extremity of foot truncate; the pallial margin at that point is broad, but there is no indication of pallial grooves for some distance anteriorly, and then they are indistinct, and so are the usual fringe-like markings on the margin. The sole of the foot is plain and undivided. The surface is longitudinally streaked and crossed by segmental V-shaped lines at intervals, very similar, in fact, to that of *Ratnadvipia*. There are no shell-lobes. The right dorsal is of moderate size; the left is divided into a large anterior lobe and a very small posterior one, with a wide interval between them.

Generative organs (Figs. 3 and 3a).—The amatorial organ is very large in comparison with the penis. This last has a well-developed, thick, straight cæcum (*c.r.p.*). There is a short kalk-sac (*k.*), rather pointed close to where the vas-deferens enters it; the penis sheath is short, bent together, and kept in this position by a strong band of muscle (*r.m.*). The spermatheca (*sp.*) is very short. There is a very distinct, smooth, ovoid swelling, of a pale-yellow tint, just above the spermatheca, which I have suggested may be an ovithecium (*o.t.*). It is present in several species of the Ariophantinae,² and has been figured and described by me in "Land and Fresh-water Mollusca of India," p. 128, pl. xcviii, figs. 2, 2a.

Alimentary system.—The salivary glands are in two separate lobes. The retractor muscles, given off from either side of the posterior end of the buccal mass, join at a short distance and form a single strong muscle. The jaw is arched, and has a central projection. The radula is wide. The rhachidian tooth is broad, with large cusps on either side; the admedian teeth have one cusp on the outer side; the laterals which follow are narrow, long, aculeate in form, with a very indistinct indication of a notch near the apex; the outermost are very short and bluntly pointed. The formula is 56 : 2 : 18 : 1 : 18 : 2 : 56.

¹ Mr. Blanford, writing on 14th April with this species before him, says:—"I shall be curious to know the results of your dissection. If the shape of the animal means anything, *H. politissima* should be an ally of the *Macrochlamys* group, not of *Ariophanta*. It may be quite peculiar."

² *Ariophanta levipes*, *Nilyiria ligulata*, and *N. Tranquebarica*.

